Beaver Lake Monitor

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In this issue

What's the poop with septic systems anyway?

Where's it all go?

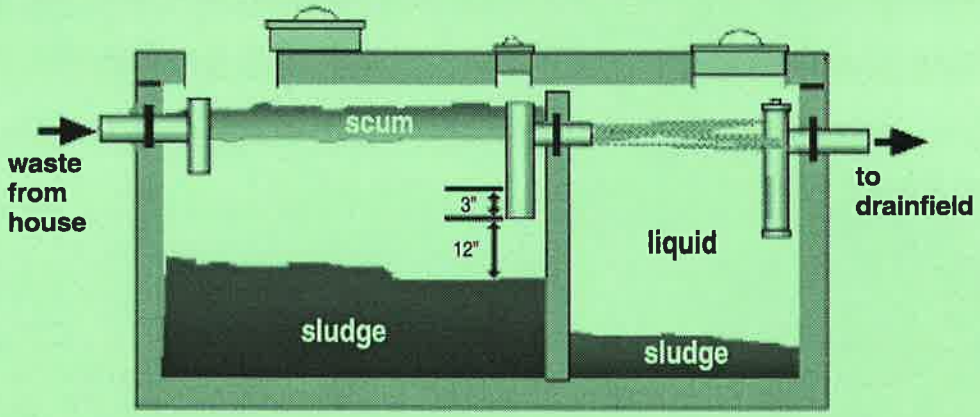
All wastewater from your home travels through a network of pipes — out of site, out of mind. But this water takes a very real journey... eventually discharging either to a septic tank and drainfield or to a sewer line. Most properties in the Beaver Lake watershed have on-site septic systems to treat wastewater.

How does a septic system work?

A typical septic system consists of a septic tank (Figure 1) and drainfield. The septic tank is either a single (prior to 1975) or double (since 1975) compartment tank that functions to store and separate the solid, liquid, and floating waste materials originating from your household.

(continued on page 3.)

Figure 1. Design of typical septic tank



The Great Beaver Lake Flush-Out

Poorly functioning septic systems contribute to the pollution of Beaver Lake. To help residents identify the status of their septic systems, the Beaver Lake Management District (BLMD) is sponsoring a septic system self-assessment event.

With this newsletter, the BLMD is providing dye tablets and testing instructions for performing a septic system self-assessment. Residents are asked to make the self-assessment sometime during the month of February when shallow groundwater levels are high and problems can be more easily detected. If you find through the self-assessment that your system is not operating correctly, you are encouraged to call your local septic system service or the Seattle King County Department of Public Health at 206 296-4932.

Stay-tuned for additional information in the next issue regarding group spring discounts for septic system pump-outs!

To add or not to add:

Septic do's and don'ts

Additives are products marketed to homeowners to "enhance" the operation of an on-site septic system. Unfortunately, additives not only fail to enhance the performance of your system, but they can be harmful to the environment. The natural bacteria present in human waste is the only "additive" your septic system needs to operate properly. Otherwise, routine pumping should be completed every three to five years to maintain your system.

Careful of what you're killing

Since your septic system relies on bacteria to break down waste material, you should avoid using caustic materials, bactericides, bleach and other household products that can kill the microorganisms in your septic system. Using drain cleaners and other household products will reduce the ability of your septic system to properly treat your wastewater.

Find alternatives

If you have a clog drain try using a plunger, coat hanger, or a drain snake. For information on less toxic alternative for most household products or information regarding the proper disposal of these products, call the King County Hazardous Waste Line at (206) 296-4692 or visit their web site at www.metrokc.gov/hazwaste/house.

Locating your septic system

Use some detective work, and a little blind luck

Depending on the age of your home and the availability of records, there are several ways to find your septic tank and drain field.

As-builts

As-builts are sketches of your property that show the location of your house, septic system, landmarks, and property boundaries. The health department requires as-builts to approve new septic systems. If you don't already have them, you can call the health department (206 296-4932) and request a records search to identify whether as-builts are available for your property.

Photos and a few holes later...

If you are building your home or installing a new system, take photographs as the system is installed. In the future, you can use landmarks (like the house and nearby trees) to pinpoint where you should dig. It may take you a few tries but once you have located it the first time, use markers (a stepping stone is ideal) to tag the location of each lid.

Other Methods

When all else fails, you may need to do some detective work. Locate where the plumbing leaves the foundation wall or use plumbing vents (coming from a bathroom) to estimate the approximate exit point of wastewater from your home. A probe bar can be used to locate the tank if it is made of concrete and within one to two feet of the surface. Otherwise you may need to rent an electronic detection device or try some divining! *(see related article below)* Never fear, a pumping service will always help locate your system for a fee.

Divining the septic field

Over the past 20 years, I have been very successful finding underground water sources such as septic tanks, pumps, wells and drainage pipes, by using the age-old technique of "Dousing". However, the modern world has replaced the bending willow branch with a space age clothes hanger.

It works like this: Take one metal hanger and straighten it out all the way. Then cut the hanger into two equal parts. Bend each piece into an L with the short length as a 4" handle. You should loosely hold a wire handle in each hand 12 " apart, waist high. Now, slowly walk over area where you suspect the water source is located. As you walk, the 2 wires will point straight out until you are over the water. Then the magic happens. The wires will quickly cross. Really!

To help mark your place, and ensure your accuracy, put a stone on the spot where they crossed and then come at the area from another angle. When I started, I was so skeptical that I would not believe it until I had 3 stones on the ground no more than 4 inches apart. Now I make one pass and start to dig where the stone has been placed. Not only do I find the septic tank or its pump, but also I usually end up centered on the access opening.

Believe it or not!

–Joe McConnell

About septic systems. . .

(continued from page 1.)

In the septic tank, bacteria naturally present in the wastewater break down accumulated solid material. The resulting liquid waste is slowly discharged from the tank to a drainfield where remaining nutrients are used by soil bacteria. Periodically, the solid and floating waste material must be removed from the tank.

Does it need maintenance?

To keep the septic system operational, the solid and floating waste materials must be removed from the septic tank every three to five years. The frequency of pumping depends upon the size of the tank, the amount of solids entering the tank, and the habits of household members. The septic tank should be pumped when the floating layer is within three inches of the bottom of the outlet or the top of the solid layer is within 12 inches of the bottom of the outlet (see Figure 1, page 1).

Is my system failing?

Near the septic system you may notice sewage odor, surface seepage and soggy spots around the drainfield, or lush green growth, all signs that your system may be failing. Inside the home you may notice other signs of failure including plumbing back-ups, slow draining fixtures, or gurgling sounds in the pipes. If you have conductied a dye test, you will notice the appearance of the dye in surface seepage or directly at a point of system failure. If you think your system may be failing, you can call the Seattle King County Department of Public Health ate (206) 296-4932 or your local septic tank service for assistance.

A relic of the past

Our world before septic systems

This outhouse on Beaver Lake is a reminder of how the lake was serviced back in the 1930's. Many of the properties on the lake were summer and weekend cabins with one lane roads and primitive utilities servicing them. This outhouse's usefulness was replaced with onsite septic service in 1954 when the cabin was moved down to the beach and replaced with a permanent residence. Many of the older waterfront homes have similar histories.

(If you have a remembrance or story to tell about the history surrounding the Beaver Lake Community, please share it with us by calling Sharon Walton at (206) 296-6519)

Septic Quick Tips

1. Inspect your septic tank once every year and pump as necessary.

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2. Avoid flushing anything you haven't eaten into a septic system (including paints, cleansers, coffee grounds, and cigarettes).

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3. Avoid commercial additives sold to enhance septic operation–all the necessary bacteria are naturally present in human waste.

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4. Avoid parking vehicles over your septic tank and drainfield.

5. Limit garbage disposal use to reduce solids build-up in your tank.

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6. Only grow grass or extremely shallow rooted plants over your septic tank and drainfield to prevent damage and ease maintenance access.

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7. Use water wisely to avoid water "overloads" and premature system failure.

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8. Discharge roof drains away from the drainfield and septic tank.

Beaver Lake Facts

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An estimated five percent of the annual phosphorus load to Beaver Lake originates from failing or partially failing onsite septic systems.*

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The average person generates four grams of phosphorus waste each day.**

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source: *Beaver Lake Management Plan
** US EPA 1980

Watching your waste line

If you have a septic system, beware of your use of the garbage disposal. Each time you flip that switch, solids are ground up and added to your system. By increasing the buildup of these solids, the natural decomposition process is thrown out of balance and the efficiency of your entire system can be lost.

So how do you deal with kitchen scraps without adding to land fill problems? As an alternative to using your garbage disposal, you can build a compost or a worm bin to turn vegetable waste and egg shells into a rich soil amendment for your garden. To learn how, check out your local library or contact King County Solid Waste by phone (206/296-6542) or web at http://www.metrokc.gov/dnr/swd/recycomp.

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BULK RATE
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Permit No. 6013

Septic dye tablet and instructions enclosed!